NATIONAL INPUT DOCUMENT FOR SNOW LEOPARD CONSERVATION IN AFGHANISTAN

National Environmental Protection Agency (NEPA)
Islamic Republic of Afghanistan

With the collaboration of

Wildlife Conservation Society (WCS)

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Snow Leopard in Afghanistan

The historical snow leopard range in Afghanistan includes the Big Pamir, Little Pamir Mountains and the Hindu Kush range from Badakhshan to Nuristan, Laghman and extends up to the central province of Bamyan and Ajar Valley (Habibi 2003). Hunter and Jackson (1997) estimated the area of potential habitat for snow leopard in Afghanistan at 117,653 km^2. However the estimated presently occupied habitat is said to be 50,000 km^2 (McCarthy & Chapron 2003). Reliable sightings as well as indirect evidence have been reported from the Big Pamir, Little Pamir and the Wakhan valley (McCarthy & Chapron 2003; Simms et al. 2011 and Moheb et al. 2012). Recent Wildlife Conservation Society field surveys confirmed the presence of the snow leopard in Big Pamir, the Hindu Kush range along the Wakhan Valley and have reported field evidence of snow leopard from Zebak in the southern part of Badakhshan. The present snow leopard distribution in Afghanistan is still poorly known and therefore information poorly reflected in the global estimates. In a biodiversity reconnaissance survey of the Darwaz region, northern Badakhshan Province, 46 out of 131 informants reported the presence of snow leopard (Moheb & Mostafawi 2012) but this new information is not yet included in the snow leopard global distribution compiled by IUCN (Figure 1).

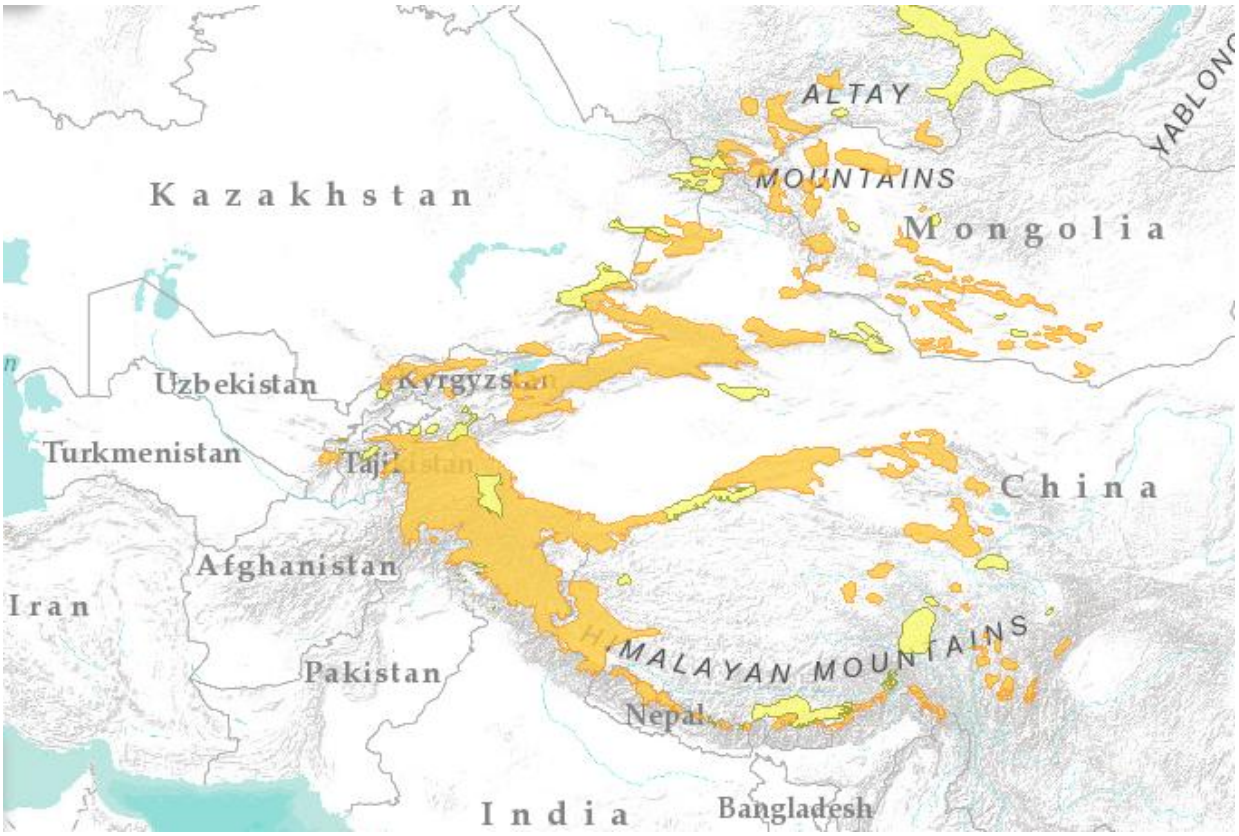

Figure 1: Snow Leopard global distribution range (IUCN 2012)

a. National goals of our program over 5 years and 10 years:

1. Identify and continuously monitor threats to the snow leopard and their prey in the country.
2. Actively mitigate the threats to snow leopards and their prey in Afghanistan.
3. Educate local communities within the snow leopard range about the importance of the species.

4. Identify the key areas where this animal is abundant and include these in the protected area system of the country.
5. Estimate and monitor population size and density of the snow leopard in priority areas.
6. Estimate population size of prey species in priority areas and monitor trends.

b. Major value of high mountain ecosystems and the case for saving the snow leopard

- The Wakhan still holds good populations of Marco Polo argali, ibex and urial as well as a full complement of smaller species. The snow leopard is the apex predator of these high mountain ecosystems and as such an indicator of ecosystem health. There must be robust populations of prey species and in turn healthy plant communities to support these if snow leopards are still present.
- Healthy mountain ecosystems mean healthy people. Rural communities that depend largely on the natural resources around them have a better chance of secure livelihoods if their ecosystems are healthy and productive- and the presence of snow leopards indicates ecosystem health.
- High mountain ecosystems are the primary water source areas for major rivers that support millions of people in downstream production areas. Healthy mountain ecosystems with good vegetation cover lead to regulated clean water flows – and so the presence of snow leopards indicates a healthy primary water source.
- High mountain areas are increasingly attractive to tourism because they are relatively pristine, spectacular landscapes. Controlled tourism can be a considerable source of revenue for communities living in these areas; the presence of snow leopards can be a considerable added attraction for tourists and an incentive for them to visit.

c. The status, challenges and lessons learned from the experience to date in implementing the current snow leopard strategy

Afghanistan has been a war-torn country for the past three decades. The past 30 years of unrest have probably significantly affected snow leopards and their prey populations. As a consequence of this unrest there has been no monitoring and little scientific research within the country and the current status of snow leopard in Afghanistan is largely unknown. Very few references exist on the status and distribution of the species in the country.

But Afghanistan has recently been starting conservation programs. The country has developed a list of 138 protected species under the Environmental Law, according to which the listed species receive legal protection from the government side. The snow leopard is one of the listed species, which means hunting them for any purpose is strictly prohibited. However, in the past snow leopards have been widely hunted for their valuable fur and the retaliatory killing after stock losses (Petocz 1978).

The main challenges of the snow leopard conservation in the country are:

- Lack of environmental education and public awareness in the mountainous areas where snow leopard exist;
- Lack of the knowledge about the status, distribution, ecology and behavior of the snow leopard;
- Poor law enforcement;

- Illegal hunting of snow leopard prey species;
- Availability of the weapons with the local communities;
- Insufficient transboundary cooperation framework with neighboring countries in the region;
- Lack of domestic stock management actions to reduce predation;
- Lack of compensatory arrangements for livestock depredation;
- Negative perceptions of the local communities against large predators including the snow leopard.

Since 2006 the Government primarily the National Environmental Protection Agency (NEPA) and the Ministry of Agriculture, Irrigation and Livestock (MAIL)) with technical assistance from the Wildlife Conservation Society (WCS) and strong donor support from USAID have implemented community based conservation management initiatives, livelihood development for local communities and scientific research activities in order to conserve the snow leopard in the Wakhan Corridor. The major lesson learned is that to successfully conserve large predators in a landscape predominated by pastoral people a multifaceted approach is essential. Targeted research alone will not lead to effective conservation, nor will livelihood support. A holistic approach that encompasses all aspects is required.

d. Discuss the experience under any ongoing donor supported projects, if any. Discuss the funding situation. Discuss an aspect that has been done particularly well in your program

The Wakhan Corridor is considered to be the key area for snow leopard in Afghanistan where a healthy population of snow leopard still exists (Simms et al. 2011).

Work done since 2006 has included policy and legislation development, which led to the passing of the Environment Law in 2007 and the listing of 138 species (including snow leopard) as protected species.

Under the Program of Work on Protected Areas (POWPA) of the CBD a priority zone analysis was done for the entire country. This was an attempt to map out key areas for high biodiversity value species and led to the first potential distribution map for snow leopard in Afghanistan (Figure 2). This exercise in turn led to the drafting and formal acceptance by Government of the National Protected Area System Plan (NPASP) which will guide the placement and development of protected areas in the country for the next 20 years.

Under continuing support from USAID the Wildlife Conservation Society has an ongoing conservation program in Wakhan. USAID has been the major donor for all of the work since 2006. Current funding runs until end of 2013.

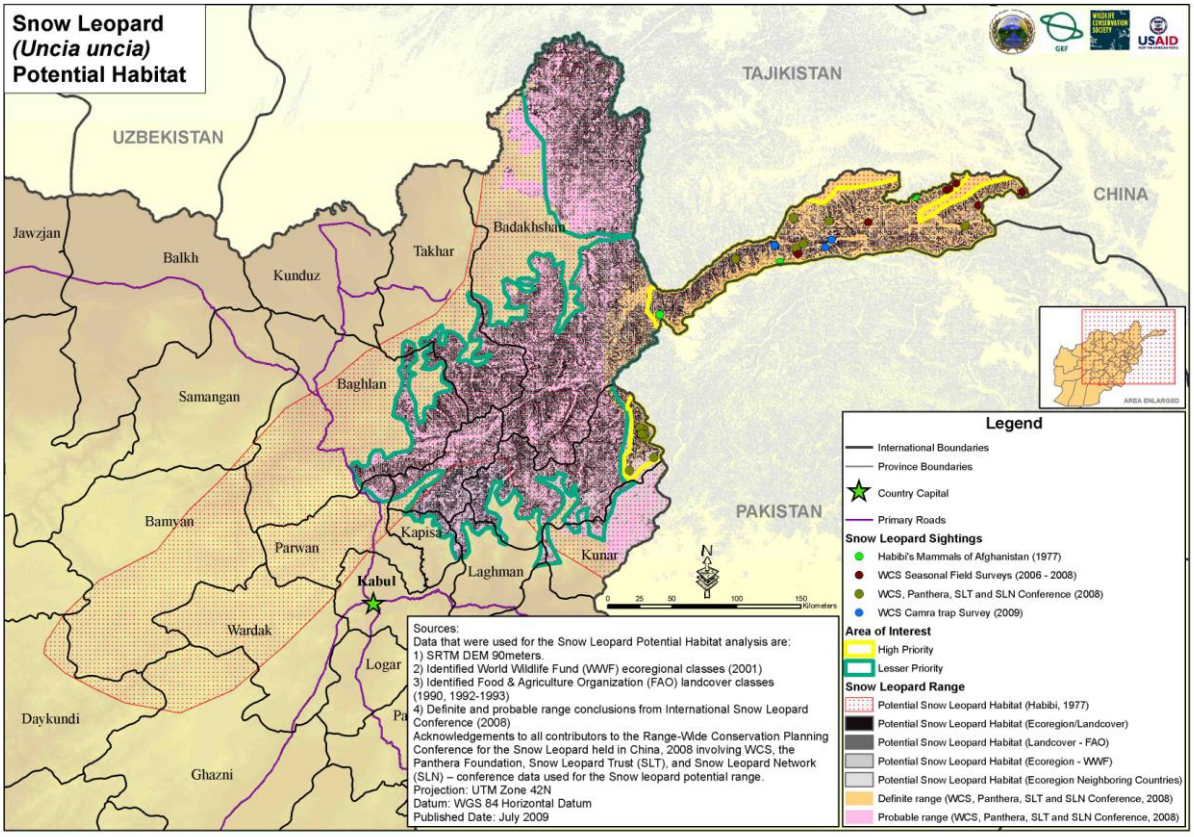

Figure 2: Snow leopard potential habitats according to the Gap Analysis of PoWPA project in Afghanistan

Aspects of the program of particular note are:

1. *Protection through local communities (governance)*

A legally recognized social organization, the Wakhan-Pamir Association (WPA), has been established. The WPA belongs to the people of Wakhan and is managed by a Board of Directors, a Chairman and a Secretary (BoD), who are elected by the community. The WPA is mandated to oversee sustainable natural resource management and socio-economic development in Wakhan. WCS and the government of Afghanistan work in partnership with the WPA. The WPA receives support and training in conservation management and livelihood development. The WPA is helping to link the communities across the region, which in turn gives them additional strength and a better ability to protect their snow leopards.

Snow leopards are directly protected through the development of a community ranger program in the Wakhan Corridor. Since 2008 55 community rangers plus 10 government rangers have been appointed who regularly patrol the area to protect the snow leopard and other wildlife in the landscape. The rangers have been recruited from the local communities throughout the landscape. As a result of this network there are now seldom instances where wildlife crimes are committed and not reported.

2. *Research and monitoring,*

Since August 2006 considerable work has been done in the field of snow leopard research and monitoring in the Wakhan Corridor. WCS with the coordination of the government of Afghanistan has surveyed the Wakhan Valley, the proposed Big Pamir Wildlife Reserve, some

parts of Zebak and Ishkashim districts and some other northern districts of Badakhshan Province.

Since April 2009 camera trap surveys for snow leopard have been conducted in the Hindu Kush range in Wakhan and are continuing. At the start the camera trapping aimed to train and familiarize the community rangers with the new technology. All camera trapping is now done following a rigorous method by these trained rangers and 30 Reconyx photo cameras and 6 Bushnell video cameras have captured hundreds of snow leopard pictures (figure 3). The camera trapping and data analysis is ongoing.

Figure 3: Camera trap photographs of snow leopards in the Wakhan District

In June 2012 two male snow leopards were successfully captured and collared with GPS collars. Soon after, in September 2012 a female snow leopard (followed by two cubs) was captured and also collared. These three collared snow leopards are in good condition and camera traps have since captured the collared leopards several times (Figure 3). The collars are working well with regular downloads of locations (Figure 4). This research aims to discover the snow leopards' movements, habitat use, home range and eventually enable a population estimation of the species in Wakhan. This study is in progress.

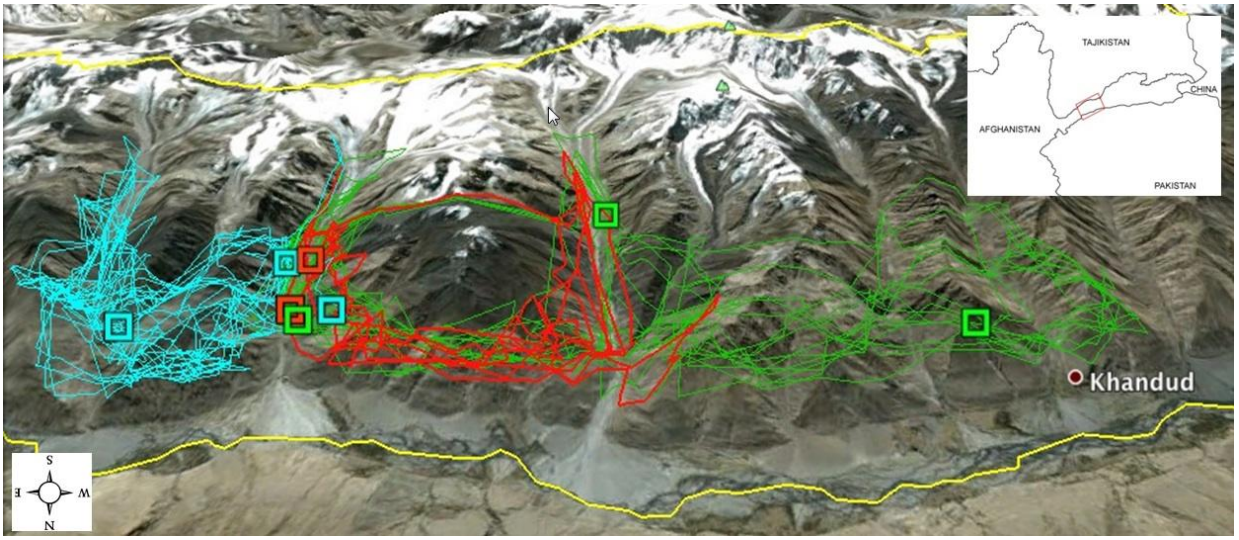

Figure 4: Tracks of the three GPS collared snow leopards

Wild ungulates such as urial, ibex, Marco Polo argali, marmots and other small mammals represent the main prey species present in the snow leopard range in the northeastern part of Afghanistan. Comprehensive baseline prey surveys have been conducted in the Hindu Kush and Pamir ranges where snow leopard presence has been confirmed by the camera trap.

3. Mitigating snow leopard depredation

Retaliatory killings as a consequent of livestock depredation is one of the major threats to snow leopards in the region. Building predator-proof corrals, training shepherds how to guard their livestock and piloting a livestock insurance program in some of the conflict areas are among the activities so far conducted to mitigate snow leopard depredation in the region.

As a result of a snow leopard depredation survey the conflict hotspots were recognized in the area. To reduce the depredation, several predator-proof corrals (Figure 5) have been built which function as a communal property in the area and all the villagers use it as to protect their livestock from predators. So far these predator-proof corrals have functioned very well and local communities are very happy with them. These predator-proof corrals have contributed to the general livelihood of local communities through saving their livestock and has inspired the local communities to build and use more corrals throughout the landscape.

The livestock insurance program is very new to Afghanistan and local communities. It has been piloted in some of the conflict hotspots in the Wakhan Corridor and local communities have shown their interest in it. This program is being further developed.

Figure 4: Predator-proof corral built in Wakhan: A. Outside view of the corral, B. Inside the corral

4. Education and awareness programs

Education and awareness programs in the snow leopard range have involved local government officials, local spiritual leaders, community elders, school students, Community Development Councils (CDCs) and overall local communities. The awareness program consisted of various initiatives such as training and workshops in communities, environmental education programs in schools, posters, brochures, environmental celebration days in the schools, and direct involvement of local communities in the conservation initiatives in their areas.

5. Livelihood support

Various livelihood support actions have been undertaken in local communities. These range from assisting in the building of a tourism visitor center, trail improvement for visitor use, guide, hygiene and language training among others. Local people have appreciated these efforts and have responded by developing a positive attitude towards conservation actions.

While these are the initiatives that have been done particularly well it is not known yet if they have positively impacted on snow leopard numbers in Wakhan. Gathering such evidence will take several years of monitoring.

e) List and discuss the 3-4 priority action areas, which will contribute most significantly to the 5-year goals. This list needs to be very selective. Please limit yourself to 3-4 priority areas

1. Continue effective on-ground protection throughout the Wakhan and other areas where snow leopards are found. This will involve continuing the community ranger program. Further training and capacity development of these rangers and any new staff and development of protected areas in the snow leopard range.
2. Continue the process of livelihood support to communities and raising public awareness of the importance of conserving species such as the snow leopard.
3. Continue monitoring of snow leopards and their prey species in order to gauge the impact of interventions and also to have early warning of any population declines.

e. Identify and discuss cross-country actions that will be needed to ensure that the national efforts are successful

- Establish an effective mechanism for the exchange of available data on the snow leopard throughout the species' range.
- Agreement on regional standardized monitoring methods for the species.
- Provide legal protection tools for the border areas.
- Sign a formal transboundary cooperation agreement.

f. State the key (i) policy, (ii) institutional, and (ii) phased expenditure support that will be needed for each of the action areas, building on the lessons learned

i. The necessary policy instruments are already in place.
ii. The Government of Afghanistan is moving to create an Afghan Parks and Wildlife Agency (APWA) that will greatly facilitate development of protected areas and on-ground protection of biodiversity
iii. Consistent and adequate funding will be needed to implement all of the needed actions.

g. Spell out by which key input/output/outcomes indicators you will know that the effort is succeeding?

Only one indicator is necessary for this;

- Detecting an increase in the snow leopard population as well as the prey-base species numbers in the targeted areas.

h. What role can NGO and funding partners play in helping implement the priority action areas?

Afghanistan is emerging from a conflict period and largely lacks the basic infrastructure and capacity to carry out the conservation activities immediately required in the country. The involvement of competent NGOs supported by donor organizations will be vital for the next few years.

NGOs need to provide technical expertise, manpower, capacity development, facilitate networking among the professional parties across the globe and help in developing the protected area system in the country as capacity is built within the Government of Afghanistan.

At the moment Afghanistan is not economically independent, which is one of the major limitations that slows down conservation and many other activities in the country. External donor organizations will have a fundamental role in snow leopard conservation initiatives for the next few years. A major problem here is the perennial one of donors not seeing such conservation efforts as a priority in a country where there are so many other pressing needs.

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